

Remarks/Arguments:

Claims 1-29 are pending in the above-identified application. Claim 30 has been cancelled. Claims 4-28 have been withdrawn from consideration.

Claims 1-3 and 29 were rejected under 35 U.S.C. § 103 (a) as being obvious in view of Morita et al. and Nakayama et al. Claim 1 is amended to recite features neither disclosed or suggested by the prior art, namely,

... wherein the at least one spherically shaped recess is ...
(b) configured for causing oil to form **a vortex flow** in the one spherically shaped recess ... (Emphasis Added).

Applicants' exemplary embodiment includes a plurality of spherically shaped recesses 123 on either a surface of piston 115 or bore 113. (FIG. 2). As recited at page 14, lines 2-5 of the specification, the spherical recesses 123 allow the flowing oil which produces the oil film when the sliding sections slide with each other, to form "a vortex flow" with ease in the recess, thereby producing oil pressure which prevents the metal contact. This "vortex flow" is also shown by the circular dotted lines and arrows in the recesses 123 at FIG. 3.

In contrast, neither Morita et al., Nakayama et al., nor the combination disclose a spherically shaped recess "...configured for causing oil to form a vortex flow in the once spherically shaped recess," as recited in claim 1.

Morita et al. includes a plurality of triangular shaped recesses 334a. (FIG. 18). These triangular shaped recesses 334a help generate oil pressure between piston 5 and cylinder 4 to provide a uniform clearance between the piston 5 and the cylinder 4. (PARA. [0221]). The pressure is generated, however, when oil is forced to flow toward the narrowed edges of the triangular recesses 334a. (PARA. [0221]). Thus, the triangular recesses 334a in Morita et al. are **not** "configured for causing oil to form a vortex flow," as recited in claim 1.

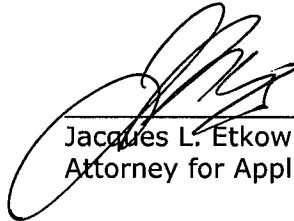
Nakayama et al. includes a spherically shaped recess 1c on shoe 1. (FIG.1). When swash plate 3 rotates, a surface of piston 2 slides relative to a surface of shoe 1. During this process, the oil stored in spherical recess 1C permeates into slider contact regions of the semi-spherical surface 1A. (Col. 2, lines 56-64 and FIG. 1). That is, the

flow of oil moves from recess 1C in opposite directions towards sliding contact regions of the semi-spherical surface 1A. The oil does **not** form a vortex flow in the spherical recess 1C. Thus, Nakayama et al. also does **not** disclose a spherically shaped recess "...configured for causing oil to form **a vortex flow** in the one spherically shaped recess," as recited in claim 1.

Thus, Applicants respectfully submit that claim 1 is allowable over the art of record. Claims 2-3 and 29 depend from claim 1. Accordingly, claims 2-3 and 29 are likewise allowable over the art of record.

In view of the foregoing amendments and remarks, Applicants submit that this Application is in condition for allowance which action is respectfully requested.

Respectfully submitted,



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